

September 21, 2011

Dear Members of the House Transportation Committee,

As a safety and traumatic injury expert at the University of Michigan Trauma Burn Center, I respectfully submit the following research data to assist you in making an accurate, informed decision regarding House Bill 4608 and referred Senate Bill 291. These two distinct bills propose to modify Michigan's 42-year-old mandatory universal (i.e. all-rider) motorcycle helmet law.

- **In this era of health care crisis and reform, laws that save health care dollars and resources are crucial.** Weakening the current motorcycle helmet law would directly conflict with our state's declared priorities of economic stabilization and the health and well-being of Michigan citizens.
- **Extensive rigorous scientific research has been done worldwide** that very clearly and repeatedly demonstrates both the protective safety and economic benefits of motorcycle helmets. *These facts are proven by over 150 independent and expert-critiqued research studies.*¹⁻¹¹
- **Data are so overwhelmingly conclusive, that we have an ethical obligation** to protect and ensure the safety of our citizens by keeping the current universal motorcycle helmet law in place.
- **Michigan citizens want a universal helmet law.** Independent surveys by Marketing Research Group and AAA Michigan reveal that an overwhelming 81 – 90% majority of Michigan residents support maintaining the current helmet law.¹²
- **Helmets are effective!** Recent robust statistical analyses confirm the findings of multiple high-quality studies showing **motorcycle helmets reduce head injuries by 69% and deaths by 42%.**¹⁻⁷
- **Partial helmet laws are not enforceable.** When universal laws are modified, helmet use *drops dramatically to < 50% among all riders regardless of restrictions* included in the law on age, safety training, experience, or insurance coverage due to the inability to monitor compliance by sight.^{6,7,10,13}
- Unhelmeted riders are **3 - 4 times more likely to suffer traumatic brain injury (TBI)** in a crash.^{5,7,10} TBI requires extensive, expensive medical treatment and often results in lifelong disability.^{3,5,6,9,11,13}
- **Brain injuries are expensive!** When universal helmet laws were repealed in other states, hospital admissions for TBI rose by 42 - 80% and acute treatment costs more than doubled due to increased injury severity.^{6,7,10} Referred SB 291's proposed \$100,000 medical insurance coverage will not sufficiently cover the total initial and long-term costs associated with a serious TBI.
- **What is the cost of "personal freedom"?** Numerous studies demonstrate nearly 50% of injured, unhelmeted motorcyclists either have governmentally funded medical coverage or do not carry insurance despite mandatory insurance provisions in the law.^{1,3,9} Medical costs should concern policymakers because the price for personal freedom is not isolated to the individual motorcyclist, but is borne by the entire community.^{8,9} How can Michigan's budget and its citizens absorb the huge financial burden of healthcare for unhelmeted riders, including visiting out-of-state riders?
- **"The single most effective way for states to save lives and save money is a universal helmet law."**¹⁴ Data regarding helmet benefits are so indisputable, that numerous premier organizations echo this statement: World Health Organization, Centers for Disease Control and Prevention (CDC), American College of Surgeons, Insurance Institute for Highway Safety, Michigan

Department of Community Health, Eastern Association for the Surgery of Trauma, National Highway Traffic Safety Administration (NHTSA), American College of Emergency Physicians, etc.

- **Unhelmeted motorcyclists are proven to increase financial burden specifically in Michigan.** A University of Michigan study revealed unhelmeted riders had 20% higher initial hospitalization costs and nearly 2x initial rehabilitation costs compared to helmeted riders.⁸ As alarming as these figures are, they do not include other intrinsic state economic drains that a TBI patient requires: emergency services, long-term rehabilitation and/or nursing home care, assistive medical equipment, long-term disability, reduced productivity, caregiver assistance, lost work, etc.
- **The CDC estimates that the state of Michigan has saved \$43 million** per 100,000 registered motorcyclists **by maintaining a universal all-rider helmet law.**¹⁴
- **Michigan's universal helmet law is a priority economic and public health issue that must be independently considered.** Burying revisions under the umbrella of a broader auto insurance reform plan is a disservice. It sacrifices public safety and places undue financial burden on citizens.
- **HB 4608 and SB 291 will not protect young riders.** Partial helmet laws enacted to "protect" young riders are proven disastrous: despite presence of mandatory helmet laws only 40 – 50% of minors were wearing helmets at the time of injury, TBI severity increased, and death rates tripled.^{5,7,10,11,13} In Florida, enactment of a partial law caused deaths of "protected" riders <21 years old to increase by 188%.^{7,10} *A universal helmet law is the only effective method shown to protect young riders.*
- **Helmet laws weakened in other states caused dramatic rises in death.** Motorcyclist fatalities following repeals of helmet laws increased by: 100% in Louisiana, 81% in Florida, 52% in Texas, and 50% in Kentucky. The increases exceeded the number of new motorcycles registered.^{7,10,13}
- **Why would Michigan eliminate a proven fundamental safety device?** We do not question the necessity of other laws mandating basic safety equipment, such as air bags, child safety/booster seats, seatbelts, or life preservers on personal watercrafts. Helmets are a motorcyclist's equivalent.
- **Commonly stated anti-helmet myth debunked:** Scientific studies of the largest national trauma database prove that motorcycle helmets reduce the risk of cervical spine/neck injuries by 22%.^{1,2,13}
- **As an avid motorcyclist I personally understand the viewpoints** of the small, but very verbose, group of anti-helmet constituents in your jurisdiction. However, my professional expertise recognizes those desires for "freedom" place an enormous financial and emotional strain on others that cannot be justified. Legislators should not be influenced to overlook incontestable scientific evidence regarding maintaining Michigan's universal helmet law.

Helmets are indisputably proven to save costs and lives, as well as reduce resource utilization and injuries. The proposed House Bill 4608 and referred Senate Bill 291 are not based on scientific evidence. There currently are no methodologically sound research data to refute the findings highlighted above. Please do not hesitate to contact me if you have questions, or need assistance in obtaining referenced publications.

Respectively,

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According to the U.S. Supreme Court ruling on *Simon v. Governor of the Commonwealth of Massachusetts*: *"From the moment of the injury, society picks the person [motorcyclist] up off the highway; delivers him to a municipal hospital and municipal doctors; provides him with unemployment compensation if, after recovery, he cannot replace his lost job, and, if the injury causes permanent disability, may assume the responsibility for his and his family's continued subsistence. We do not understand a state of mind that permits plaintiff to think that only he himself is concerned."*

An abbreviated research study reference list follows (a complete list is available upon request):

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3. Hundley JC, Kilgo PD, Miller PR, Chang MC, Hensberry RA, Meredith JW, Hoth JJ. Non-helmeted motorcyclists: a burden to society? A study using the National Trauma Data Bank. *J Trauma* 2004;57(5):944-9.
4. Liu BC, Ivers R, Norton R, Boufous S, Blows S, Lo SK. Helmets for preventing injury in motorcycle riders. *Cochrane Database Syst Rev* 2008;(1):CD004333.
5. MacLeod JB, Digiacomio JC, Tinkoff G. An evidence-based review helmet efficacy to reduce head injury and mortality in motorcycle crashes: EAST practice management guidelines. *J Trauma* 2010;69(5):1101-11.
6. Mertz KJ, Weiss HB. Changes in motorcycle-related head injury deaths, hospitalizations, and hospital charges following repeal of Pennsylvania's mandatory motorcycle helmet law. *Am J Public Health* 2008;98(8):1464-7.
7. National Highway Traffic Safety Administration. Motorcycle helmet use laws, DOT HS-810-887W. Washington, D.C.: U.S. Department of Transportation, 2008.
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9. Lawrence BA, Max W, Miller TR. Costs of injuries resulting from motorcycle crashes: a literature review, DOT HS 809 242. Washington, D.C.: National Highway Traffic Safety Administration, 2002.
10. Ulmer RG, Shabanova Northrup V. Evaluation of the repeal of the all-rider motorcycle helmet law in Florida, DOT HS-809-849. Washington, D.C.: U.S. Department of Transportation, 2005.
11. Weiss H, Agimi Y, Steiner C. Youth motorcycle-related brain injury by state helmet law type: United States, 2005-2007. *Pediatrics* 2010;126(6):1149-55.
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13. Insurance Institute for Highway Safety. Motorcycle helmet use laws, 2011. www.iihs.org/research/quanda/helmet_use.html
14. Centers for Disease Control and Prevention. www.cdc.gov/Motorvehiclesafety/pdf/mc_state/michigan-a.pdf